

**WHAT IS CLAIMED IS:**

1. A spring-loaded cylinder for generating braking forces for an emergency and parking brake effect, comprising:

a cylinder housing;

a piston arranged in the housing, which piston is movable for operating a brake lever and which is pretensioned via a spring toward the brake lever when installed;

a release screw operable to move the piston from an extended position operating the brake lever in a braking position against a force of the spring into a withdrawn position releasing the braking position;

a primary chamber arranged in the cylinder housing, which chamber is adapted to be acted upon by pressure and, when a response pressure of the piston is exceeded, moves the piston against the force of the spring into the withdrawn position; and

at least one contact switch provided between the release screw and the piston, which detects a position of the piston in the cylinder housing.

2. The spring-loaded cylinder according to claim 1, wherein the withdrawn position of the piston is detectable via the contact switch.

3. The spring-loaded cylinder according to claim 1, wherein the release screw comprises a release screw head arranged in a tube section of the piston, and further wherein said contact switch is provided at an exterior face of the release screw head for detecting the withdrawn position of the piston.

4. The spring-loaded cylinder according to claim 2, wherein the release screw comprises a release screw head arranged in a tube section of the piston, and further wherein said contact switch is provided at an exterior face of the release screw head for detecting the withdrawn position of the piston.

5. The spring-loaded cylinder according to claim 1, wherein at one end side the release screw includes a thickened release screw head and, at an opposite side of the release screw head facing the release screw, a further contact switch is provided for detecting an engagement of the release screw head with the piston.

6. The spring-loaded cylinder according to claim 2, wherein at one end side the release screw includes a thickened release screw head and, at an opposite side of the release screw head facing the release screw, a further contact switch is provided for detecting an engagement of the release screw head with the piston.

7. The spring-loaded cylinder according to claim 1, wherein the release screw is provided with at least one duct for receiving signal lines for the contact switch.

8. The spring-loaded cylinder according to claim 2, wherein the release screw is provided with at least one duct for receiving signal lines for the contact switch.

9. The spring-loaded cylinder according to claim 3, wherein the release screw is provided with at least one duct for receiving signal lines for the contact switch.

10. The spring-loaded cylinder according to claim 5, wherein the release screw is provided with at least one duct for receiving signal lines for the contact switch.

11. The spring-loaded cylinder according to claim 7, wherein at a section of the release screw projecting out of the cylinder housing, contact elements are provided which couple with the contact switch and are adapted to be contacted via a plug.

12. The spring-loaded cylinder according to claim 1, wherein a further contact switch is provided for detecting a position of the piston at a narrow spacing from the withdrawn position in which the brake is completely released.

13. The spring-loaded cylinder according to claim 1, wherein a plurality of contact switches for detecting the position of the piston are provided on the cylinder housing.

14. The spring-loaded cylinder according to claim 2, wherein a plurality of contact switches for detecting the position of the piston are provided on the cylinder housing.

15. The spring-loaded cylinder according to claim 3, wherein a plurality of contact switches for detecting the position of the piston are provided on the cylinder housing.

16. The spring-loaded cylinder according to claim 5, wherein a plurality of contact switches for detecting the position of the piston are provided on the cylinder housing.

17. The spring-loaded cylinder according to claim 1, further comprising:  
a membrane upon which the piston is pressed via the spring; and  
a piston rod having a pressure piece which presses against the brake lever, the piston rod being pressed via the membrane.

18. The spring-loaded cylinder according to claim 1, wherein one of said at least one contact switch is arranged at or in an external plug, and wherein said one contact switch is operable by way of a pin provided in the release screw.

19. The spring-loaded cylinder according to claim 1, wherein signal triggering of the contact switch is adjustable relative to a defined stroke position of the piston or of the release screw.

20. The spring-loaded cylinder according to claim 1, wherein the contact switch includes a switch head interacting with contact points in order to make available an electric line in case of a contact operation.

21. A spring-loaded cylinder for parking and emergency braking functions, comprising:

a housing in which a piston is arranged, said piston being movable for operating the braking functions;

a spring having a spring force, the spring being arranged to pretension the piston so as to operate the braking functions;

a release screw adapted to move the piston from an extended position in which the braking functions are operated against the spring force into a withdrawn position releasing the braking functions; and

at least one contact switch arranged between the release screw and the piston, the contact switch detecting a position of the piston within the housing.

22. The spring-loaded cylinder according to claim 21, wherein the release screw includes a screw head arranged in a tubular section of the piston, wherein the contact switch is arranged at an exterior face of the screw head such that the withdrawn position of the piston is determinable.

23. The spring-loaded cylinder according to claim 22, wherein a further contact switch is provided on an underside of the screw head facing the release screw, said further contact switch being adapted to detect an engagement of the screw head with the piston.

24. The spring-loaded cylinder according to claim 23, wherein a further contact switch is provided on an underside of the screw head facing the release screw, said further contact switch being adapted to detect an engagement of the screw head with the piston.